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For Immediate Release
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DWPF Melter 4 Vessel, Frame Arrive Ahead of Schedule, On Budget

AIKEN, S.C. (November 14, 2011) – The vessel and frame assembly of the next Defense Waste Processing Facility (DWPF) melter was received recently at a site near Savannah River Site (SRS), completing a significant procurement and delivery milestone for Savannah River Remediation (SRR).

Melter 4 vessel and frame assembly will be stored at the Energy Solutions plant in Barnwell while refractory bricks and necessary components are added. The assembly of melter 4 vessel and the associated components is targeted for completion in 2014.

The milestone was much appreciated by Steve Wilkerson, SRR DWPF Project Director, who noted the procurement, fabrication and delivery process of a melter can take up to six years.

“The melter is the heart of DWPF operations, and this team took to heart the seriousness of the milestone and achieved it on time and within budget,” Wilkerson said. “It is always nice to have a melter staged and ready when we need one.”

Melter 2 has been in service at DWPF since 2003 and is operating beyond its life expectancy, which is two years for a melter. Melter 3 is in storage waiting its turn.

The DWPF converts high-level radioactive liquid waste into a solid glass form through the melter process, which makes the treated waste suitable for long-term storage and disposal. DWPF operations are essential in SRR’s mission to operationally close the Site’s underground waste tanks.

Calling the melter’s procurement and delivery an example of a successful U.S. Department of Energy (DOE) project, Steve Mackmull, DOE DWPF Project Manager, praised the project team for its commitment to succeed.

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(add one – melter 4)

"This project involved eight major vendors, 13 components, at a total cost of $20 million, which came in on scope, on time, and on budget," Mackmull said. "This is a significant achievement, not only for DOE, but for the DOE complex. Utilizing the expertise of all involved and pro-active project management, demonstrates that when there is a will, there is a way."

The process to obtain melter 4 began in 2007 when a request for proposal was sent to potential vendors. A bid to construct the massive 65-ton melter vessel was awarded to Newport News Industrial (NNI), located in Newport News, VA. The contract delivery date was September 30, 2011.

However, the delivery date was in jeopardy several times during construction, according to Brian Geyer, SRR Melter Project Manager, who also added his congratulations to the team.

"The team identified innovative solutions, such as installing support systems on the melter frame in parallel with vessel machining, which allowed the team to maintain the overall schedule," Geyer said. "The melter fabrication is extremely complex, with strict requirements. It is not unusual for a fabrication of this complexity to require additional budget after the award."

He continued, "The SRR melter team worked hand-in-hand with the strong leadership of the NNI melter team to avoid any cost increase and safely delivered a high-quality product."

The purpose of a DWPF melter is to receive a chemically balanced feed consisting of treated high-level waste mixed with a borosilicate frit, convert this mixture to a molten glass form and pour the glass into stainless steel storage canisters. The melter assembly consists of a cylindrical vessel internally lined with refractory brick and ceramic insulation and surrounded by a water cooling jacket. The melter is supported on its own frame, which allows movement of the entire assembly as a single unit.

DOE officials and members of the SRR DWPF melter team recently visited the location where melter 4 is being stored, while refractory and components are added. This work, along with final assembly and testing, will take several years, making melter 4 available as a spare in early 2014.

Terrel Spears, Assistant Manager for Waste Disposition Project, U.S. Department of Energy (DOE) Savannah River Operations, congratulated the employees for reaching the milestone.

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(add two – melter 4)

“My congratulations to the team for keeping everything on track,” Spears said. “This is very impressive.”

SRS is owned by DOE. The SRS Liquid Waste contract is managed by SRR, a team of companies led by URS Corp. with partners Bechtel National, CH2M Hill and Babcock & Wilcox. Critical subcontractors for the contract are AREVA, Energy Solutions and URS Safety Management Solutions.

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